



Institute of Earth Sciences, ICT

Master scholarship, 1 vacancy

06 of january of 2022

A call for tenders is open for one Master Scholarship within the scope of the project Veículo Inovador Reutilizável para Investigação e Alavancagem de Tecnologia Orbital (VIRIATO), POCI-01-0247-FEDER-046100 e LISBOA-01-0247-FEDER-046100, financed by national funds through “FEDER” and by Portugal 2020 through the Programa Operacional Competitividade e Internacionalização e do Programa Operacional Regional de Lisboa under the following conditions:

Scientific area: Electrotechnical Engineering (Electronics and Computers or Telecommunications)

Admission requirements:

- 1) Master's Degree in Electronic Engineering and Computers or Telecommunications;
- 2) Advanced training in electronic and optoelectronic instrumentation;
- 3) Knowledge in integrated circuit design;
- 4) Knowledge in design of digital systems with SoC FPGA;
- 5) Knowledge in photonic circuit design and simulation;
- 6) Ability to write reports in English.

As set forth FCT Research Scholarship Regulation No. 950/2019 of December 16, 2019, article 3 and 6, candidates for “**BI**” (Research Grants) must comply as a rule condition for the award of the scholarship, the effective inclusion in study cycles leading to the attribution of academic degrees or in courses not leading to an academic degree. Courses that do not confer an academic degree correspond to the courses provided for in subparagraph e) of paragraph 3 of article 4 of Decree-Law No. 74/2006 of 24 March and must be developed in a higher education institution in association with at least one R&D unit, including a course plan in one or several research areas of the unit.

Work plan:

- 1) Review of the state of the art in the scope of solutions for multi-channel instrumentation systems for launchers (orbital vehicles);

- 2) Survey of system requirements for the launcher: within the scope of environmental operating conditions (operating temperatures, vibrations); within the scope of technical needs (interfaces, parameters to be monitored, acquisition tags, storage needs); within the scope of data transmission protocols (processing needs, final data format);
- 3) Definition of system requirements for the launcher;
- 4) Design of the launcher status acquisition and monitoring system;
- 5) Simulation and implementation of the System;
- 6) Definition of test plans;
- 7) Carrying out functional tests;
- 8) Qualification of the system;
- 9) Conducting tests in the launcher's operating environment.

Applicable legislation and regulations: The granting of the Research Scholarship will be carried out upon the signing of a contract between the University of Évora and the scholarship holder, as set in the template https://www.fct.pt/apoios/Minuta_Contrato_Bolsa.docx, pursuant to the Research Scholarship Statute (Law No. 40/2004 of August 18 and Decree-Law No. 123/2019 of August 28) and in accordance with the legislation and Regulation of Research Grants of the Foundation for Science and Technology, IP in force, regulation nº950/2019 of December 16, 2019: <https://www.fct.pt/apoios/bolsas/regulamento.phtml.pt> and other applicable rules.

Place of work: The work will be developed at the ICT, Institute of Earth Sciences of the University of Évora, under the scientific guidance of Doctor Rui Melício, Doctor Paulo Gordo and Doctor João Casaleiro. The candidate will have to travel frequently to the CENTRA Laboratories, Faculty of Sciences, University of Lisbon; CTS, Center of Technology and Systems, Universidade Nova de Lisboa and Instituto Superior de Engenharia de Lisboa.

Duration of the scholarship: The scholarship will have a duration of 6 six months, starting on February of 2022. The grant contract can be renewed up to a maximum of 31 months or until the end of the budget allocation of the funding project (Reusable Innovative Vehicle for Research and Leveraging Orbital Technology (VIRIATO), POCI-01-0247-FEDER-046100 and LISBOA-01-0247-FEDER-046100 | GD/34723/2019 and co-financed by "FEDER" and Portugal 2020 through the Competitiveness and Internationalisation Operational Programme and the Lisbon Regional Operational Programme).

Amount of monthly maintenance allowance: The amount of the scholarship corresponds to €1 104,64, according to the table of scholarships awarded directly by FCT, I.P. in Portugal (<http://fct.pt/apoios/bolsas/valores>), payments being made monthly, by check or bank transfer.

Selection methods: The selection methods to be used will be based on the following parameters: Curriculum evaluation (100%).

The jury may call the candidates for a selection interview in the event of a tie.

In this case the selection interview will have the evaluation of 15% and the curriculum will have the evaluation of 85%.

Composition of the Selection Jury:

President: Prof. Dr. Rui Melício (ICT, University of Évora)

1st Member - Prof. Dr. Paulo Gordo (CENTRA, Center for Astrophysics and Gravitation, University of Lisbon)

2nd Member - Prof. Dr. João Casaleiro (CTS, Center of Technology and Systems, Universidade Nova de Lisboa)

1st Alternate - Prof. Dr. Paulo Garcia (CENTRA, Center for Astrophysics and Gravitation, University of Lisbon)

2nd Alternate - Prof. Dr. José Figueiredo (CENTRA, Center for Astrophysics and Gravitation, University of Lisbon)

Advertising/notification of results: The final results of the evaluation will be publicized, through an ordered list by final grade obtained posted in a visible and public place (ICT, Colégio Luis António Verney, Rua Romão Ramalho, nº59, Évora 7000-671), being the candidate (a) approved notified through email.

To ensure the right of prior hearing of interested parties, the Final Classification project will be announced by any written means to all interested parties.

After communicating the provisional list of the results of the evaluation, candidates have a period of 10 working days to express their opinion in a preliminary hearing of interested parties.

Application deadline and submission of applications: The tender is open from 07 January to 21 January of 2022 and the results of the selection will be published by 26 of January of 2022.

Applications must be formalised by sending a letter of application accompanied by the following documents: Curriculum Vitae, qualifications certificate and other supporting documents deemed relevant, via email to Professor Rui Melício, ruimelicio@uevora.pt with the subject "Candidatura Bolsa de Doutoramento Projeto Viriato".

For the purposes of application, the evidence may be replaced by a declaration of honor signed by the candidate, but the failure to demonstrate that evidence, in the contracting phase, possession of the required degree on the deadline for application or the non-presentation of

proof of enrollment in the study cycle or non-degree course, for scholarships with this component, imply the cancellation of the candidate's application.

Academic degrees obtained in foreign countries require registration by a Portuguese Institution in accordance with Decree-Law no. 66/2018, of August 16 and Ordinance No. 33/2019, of January 25th.

The presentation of the certificate is mandatory for the signing of the contract. More information can be obtained at: <https://www.dges.gov.pt/pt/pagina/recognition?plid=374>

Applications must be sent by email to:

Prof. Rui Melício

subject: "Candidatura Bolsa de Doutoramento Projeto Viriato".

ICT of the University of Évora

email: ruimelicio@uevora.pt

